

Notice of Allowability

Application No.

10/817,647

Examiner

Lora E. Barnhart

Applicant(s)

POWERS ET AL.

Art Unit

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's reply received 9/22/06.
2. ☒ The allowed claim(s) is/are 1.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with K.S. Carnaby on 10/23/06.

The application has been amended as follows:

Replace claim 1 in its entirety with the following.

1. A method for distinguishing among intrinsically fluorescent biological materials on a surface at a crime scene, wherein said materials are selected from the group consisting of blood, saliva, semen, skin oil, and urine, said method comprising:

- a) exciting at least one intrinsic fluorophore having a specific excitation range of electromagnetic radiation with a wavelength above 200nm within said materials by exposing the materials to light with one or more ranges of excitation wavelengths;
- b) detecting the signal intensities associated with the maxima and minima at one or more ranges of wavelengths of the resulting emission fluorescence;
- c) detecting the background intensities at the minima and maxima of the fluorescence of the biological materials in the absence of excitation light and subtracting said background intensities from the signal intensities detected in step b);

- d) calculating the intensities of the reflectance and scattering at the maxima of the fluorescence of the biological materials from the intensities of the background-subtracted minima;
- e) subtracting the reflected and scattered signal intensities calculated in step d) and measured background intensities detected in step c) from the fluorescence of the biological materials detected in step b) at each of said one or more emission wavelengths, thereby determining the presence of a biological material by the presence of emitted fluorescence at particular emission wavelengths;

wherein the presence of blood is indicated by the emission of fluorescence in the 320-360nm range upon excitation with excitation wavelengths in the 250-300nm range and the emission of fluorescence in the 630-700nm range upon excitation with excitation wavelengths in the 570-590 nm range; and

the presence of saliva is indicated by the emission of fluorescence in the 320-260 nm range upon excitation with excitation wavelengths in the 250-300nm range and the emission of fluorescence in the 630-700nm range upon excitation with excitation wavelengths in the 520-540 nm range and 570-590nm range; and

the presence of semen is indicated by the emission of fluorescence in the 320-360nm range upon excitation with excitation wavelengths in the 250-300nm range; the the emission of fluorescence in the 430-480nm range upon excitation with excitation wavelengths in the 250-290nm range; the emission of fluorescence in the 420-510nm range upon excitation with excitation wavelengths in the 360-390nm

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range; the emission of fluorescence in the 430-540nm range upon excitation with excitation wavelengths in the 390-410nm range; the emission of fluorescence in the 480-570nm range upon excitation with excitation wavelengths in the 430-470nm range; and the emission of fluorescence in the 860-930nm range upon excitation with excitation wavelengths in the 790-810nm range;

the presence of skin oil is indicated by the emission of fluorescence in the 320-360nm range upon excitation with excitation wavelengths in the 250-300nm range; and the emission of fluorescence in the 630-700nm range upon excitation with excitation wavelengths in the 520-540nm range; and

the presence of urine is indicated by the emission of fluorescence in the 320-360nm range upon excitation with excitation wavelengths in the 250-300nm range; the the emission of fluorescence in the 420-510nm range upon excitation with excitation wavelengths in the 360-390nm range; the emission of fluorescence in the 430-540nm range upon excitation with excitation wavelengths in the 390-410nm range; the emission of fluorescence in the 480-570nm range upon excitation with excitation wavelengths in the 430-470nm range; and the emission of fluorescence in the 760-840nm range upon excitation with excitation wavelengths in the 640-680nm range. - - -

Cancel claims 3-11.

The following is an examiner's statement of reasons for allowance: The limitation of the biological material to particular fluids overcomes the prior art rejections, all of which referred to microbial contaminants on surfaces. The inclusion of particular criteria

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for identifying five particular biological fluids overcomes the rejections under 35 U.S.C. § 112, first and second paragraphs.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lora E. Barnhart whose telephone number is 571-272-1928. The examiner can normally be reached on Monday-Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Lora E Barnhart



SANDRA E. SAUCIER
PRIMARY EXAMINER